DETAILED ACTION

1. The following paragraph replaces paragraph 5 of the final office action dated January 14, 2009. All other objections remain similar to those in previous office action. Rejections of claims dependent on claims 23, 24, 28-31, and 33-34 also remain similar. The period for reply is reset from the date of mailing current action and the correction is the patent number of Gabl being 5592327.

2. Claims 23, 24, 28-31, 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Phillips** et al (US 5835199) in view of **Gabl** et al (US 5592327). Phillips teaches (claim 23 and 44) an object detection sensor, a frequency shifted laser radiation source for distance measurements, comprising: a frequency shifted feedback laser; the laser radiation being usable for determinations of distances of objects when using an object detection sensor which receives laser light radiation coming from an object illuminated with the emitted light and being at a distance to be determined and laser light radiation not coming from the object is brought to interference so as to detect a beat signal of the plurality of frequency components that change with time in a chirping manner and which are comprised in the laser light radiation coming from the object at the distance to be determined interfering with the plurality of frequency components that change with time in a chirping manner and which are comprised in the light radiation not coming in from the object and to allow for the determination of the distance of the object from the beat signal; wherein the frequency shifted feedback (abs and col 2, line 56 to col 3, line 10 col 7, lines 29-47 and claim 65), (claim 28) the means for modulation is adapted to vary the

modulation frequency around a signature frequency of $\delta v = a \times c \times \delta 1$, wherein a -- chirp rate, c = speed of light, and 81 = distance to be determined (col 2), (claim 24) the means for modulating is a means for modulating the seed laser light (abs), (claim 29) the modulation frequency is periodically varied around the signature frequency of $\delta v = a \times c \times \delta 1$, (claim 30) the means for modulation is adapted to vary the modulation frequency periodically linear with time (col 2), (claim 35) the gain medium of the frequency shifted feedback laser is constituting the resonator (abs).Phillips does not teach resonator having a pumped gain medium therein so as to emit laser light having a plurality of frequency components changing with time in a chirping manner for irradiation of an object with laser light radiation a laser radiation source further comprises a means for injection of narrow banded non-pumping seed laser light into the resonator and a means for modulation to adjusting the narrow banded seed laser light and the chirp rate to one another such that for a given distance the intensity of the beat signal is increased. Gabl teaches (claim 23 and 44) resonator having a pumped gain medium therein so as to emit laser light having a plurality of frequency components for irradiation of an object with laser light radiation a laser radiation source further comprises a means for injection of narrow banded non-pumping seed laser light into the resonator and a means for modulation to adjusting the narrow banded seed laser light and the pulse rate to one another such that for a given distance the intensity of the beat signal is increased (abs), (claim 34) the injection laser is a single mode laser (Abs). It would have been obvious to modify **Phillips** to include resonator having a pumped gain medium therein so as to emit

laser light having a plurality of frequency components changing with time in a chirping manner for irradiation of an object with laser light radiation a laser radiation source further comprises a means for injection of narrow banded non-pumping seed laser light into the resonator and a means for modulation to adjusting the narrow banded seed laser light and the chirp rate to one another such that for a given distance the intensity of the beat signal is increased because it is merely substitution of a well known system with no new or unexpected results. With respect to claim 31, while Phillips in view of Gabl does not teach the means for injection of seed laser light is an injection laser adapted to increase the beat intensity of the frequency shifted laser emitted frequency components at the object sensor beyond the intensity which can be obtained with spontaneous emission in the resonator of the frequency shifted feedback laser only. It would have been obvious to modify Phillips in view of Gabl to include the means for injection of seed laser light is an injection laser adapted to increase the beat intensity of the frequency shifted laser emitted frequency components at the object sensor beyond the intensity which can be obtained with spontaneous emission in the resonator of the frequency shifted feedback laser only because it is one of multiple design choices with no new or unexpected results. With respect to claim 33, while Phillips in view of Gabl does not teach the injection laser has a frequency width of less than 5 % of the gain of the frequency shifted feedback laser radiation gain medium. It would have been obvious to modify Phillips in view of Gabl to include the injection laser has a frequency width of less than 5 %

of the gain of the frequency shifted feedback laser radiation gain medium because it is one of multiple design choices with no new or unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY A. BRAINARD whose telephone number is (571) 272-2132. The examiner can normally be reached on Monday - Friday 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/T. A. B./
Examiner, Art Unit 3662

/Thomas H. Tarcza/
Supervisory Patent Examiner, Art Unit 3662